

On Some American Aeolothripidae (Thysanoptera).

By J. DOUGLAS HOOD, U. S. Biological Survey.

Three years ago, in this journal, Dr. E. A. Back recorded *Aeolothrips vespiformis* Crawford, as rather common at Orlando, Florida. The species had been described three years before from a unique female collected in Nicaragua. For it he erected the new genus *Franklinothrips*, in honor of Dr. Henry J. Franklin. A second species of this genus is described below, from Panama. The European *Aeolothrips albicinctus* Haliday is also reported for the first time from America.

FRANKLINOTHRIPS Back.

1912. *Franklinothrips* Back, Ent. News, Vol. XXIII, p. 75.

1913. *Franklinothrips* (pars), Bagnall, Trans. 2nd Intern. Ent. Congr., pp. 396, 397.

1913. *Franklinothrips* (pars), Bagnall, Journ. Econ. Biol., Vol. 8, p. 157.

Type. *Aeolothrips vespiformis* Crawford, designated by Back, l. c.

This genus is very distinct from *Aeolothrips*, in which its type species was originally described, as shown by the union of the head and prothorax into a compact elliptical mass; by the short broad head, whose outline as seen from above is almost exactly semi-circular; and by the narrow fore wings, which are without cross veins, distinctly broader across scale than at basal fourth, and which have a denuded area near base and long costal bristles.

Aeolothrips longiceps Crawford, *A. nasturtii* Jones, and *Mitothrips megalops* Trybom have recently been placed in *Franklinothrips*; but the first two of these appear rather to be true members of the genus *Aeolothrips* Haliday, while the third forms the type of the genus *Mitothrips* Trybom. *Aeolothrips longiceps* is almost certainly a male of *A. kuwanaii* Moulton in which the wing veins have become obliterated by the reagents used in its mounting; and it is just possible that this explanation is the proper one for the disappearance of the cross veins in the wing of *A. nasturtii*. Both species were described from uniques.

Mitothrips megalops certainly belongs in a distinct genus, for the third and fourth antennal segments are remarkably elongated, the fourth alone being nearly three times as long as the five succeeding segments combined. Furthermore, the head is greatly enlarged and not at all continuous in outline with the prothorax, and the eyes are exceedingly large, prominent, and reniform. It is doubtless the closest known relative of *Franklinothrips*; the resemblance of the wings is especially noteworthy.

As above restricted, *Franklinothrips* contains two species which may be separated by the following:

Key to the Species of Franklinothrips.

- a. Antennae less slender, the third segment about 11 times as long as greatest subapical width; segments 1-3 clear pale yellow; combined lengths of segments 5-9 about 1.3 times as great as that of segment 3; 3 about 2.5 times as long as 5. Fore wing near apex with a rather poorly defined pale spot which does not attain the ring vein. (Fla., Tex., Nicaragua, Panama.)

F. vespiformis Crawford.

- aa. Antennae more slender, the third segment about 13 times as long as greatest subapical width; segments 1-4 clear pale yellow; combined lengths of segments 5-9 about equal to that of segment 3; 3 about 3.7 times as long as 5. Fore wing near apex with a large distinct white area entirely occupying the space between the two portions of the ring vein. (Panama.)

F. tenuicornis Hood.

Franklinothrips vespiformis Crawford. (Fig. b).

1909. *Aeolothrips vespiformis* Crawford, Pomona Coll. Journ. Ent., Vol. 1, p. 109, fig. 49, A-D.

1912. *Franklinothrips vespiformis*, Back, Ent. News, Vol. XXIII, p. 75, figs. 1-3.

1913. *Franklinothrips vespiformis*, Hood, Psyche, Vol. XX, p. 119.

1913. *Franklinothrips vespiformis*, Bagnall, Trans. 2nd Ent. Cong., p. 397.

Distribution: Nicaragua (Crawford); Florida (Back); Texas (Hood); Canal Zone, Panama (Hood); Moro Island, Panama (Bay of Panama, near Taboga Island), October 17, 1913, 3 females, James Zetek.

Franklinothrips tenuicornis sp. nov. (Fig. a).

Female.—Length about 1.8 mm. General color blackish brown, with purple reflections, the head darkest; pterothorax with bright orange pigment; first abdominal segment orange, with a line of brown along

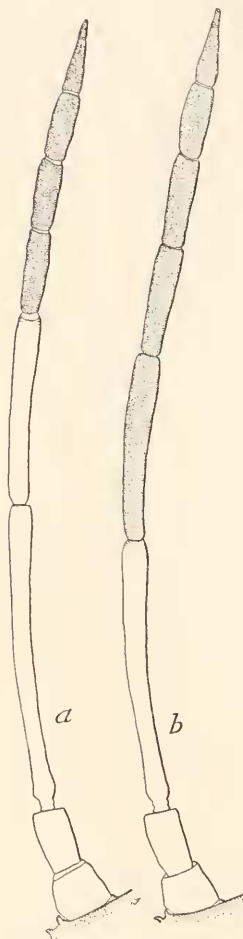


Fig. a, right antenna of *F. tenuicornis* Hood.

Fig. b, right antenna of *F. vespi-formis* Crawford.

sides and base; second and third segments clear white in apical two-thirds, brown at base; last segment lemon yellow; antennal segments 1-4 clear pale yellow, 5-9 dark blackish brown; fore femora orange, shaded with brown on outer surface; middle and hind femora white at extreme base, yellow at apex, the intermediate portion brown, with orange pigment; tibiae brown, tarsi yellow; wings of fore pair dark brown, with three transverse white bars; the first sub-basal, narrow, irregular, not traversing the scale; the second broad, crossing middle of wing; the third sub-apical, not quite attaining margins.

Head about two-thirds as long as wide, smooth and shining above, sloping evenly to base of antennae, the dorsal outline of cheeks, eyes and front of head almost exactly semicircular; frontal costa broadly rectangularly emarginate; a pair of rather prominent bristles between anterior and posterior ocelli, two pairs of smaller post-ocellar bristles, and a few still smaller bristles on cheeks and eyes; ventral surface of head flattened, densely hairy, produced anteriorly as far as the base of the first antennal segment, the apex of this production with a pair of dark bristles nearly equal in length to the two basal segments of antennae. Eyes longer than their distance from posterior margin of head, posteriorly prolonged on ventral surface, and with large, circular, separated facets. Ocelli of posterior pair twice the diameter of anterior ocellus and more widely separated. Antennae very slender, about 3.7 times as long as head; segment 3

greatest subapical width and 3.7 times as long as 5; combined lengths of 5-9 about equal to that of 3; segments 1-4 pale yellow, 4 grayish at apex; 5-9 nearly black. Maxillary palpi 3-segmented; labial palpi 4-segmented.

Prothorax slightly longer and broader than head, much broader than long, sides converging posteriorly, with a few minute bristles. Mesothorax semicircularly rounded in front. Wings of fore pair narrow, without cross veins, distinctly broader across scale than at basal fourth, and with a denuded area near base. Legs very long and slender.

Abdomen very narrow at attachment to thorax, subpetiolate, diverging to sixth segment, where it is about 1.3 times as wide as pterothorax, thence converging abruptly to tip. Bristles on segment 10 yellow, all others dark brown, arranged as in its congener.

Measurement of holotype: Length 1.76 mm.; head, length .198 mm., width .290 mm.; prothorax, length .222 mm., width .300 mm.; mesothorax, width .330 mm.; abdomen, width at segment 6, .432 mm. Antennal segments: 1, 36; 2, 48; 3, 246; 4, 156; 5, 72; 6, 60; 7, 54; 8, 43; 9, 16 microns; total length of antenna, .73 mm.; width at segment 3, .0195 mm.

Described from one female taken by Mr. James Zetek, by sweeping, Moro Island, Panama (Bay of Panama, near Taboga Island), October 17, 1913.

Closely allied to *F. vespiformis*, with which it was taken and at first confused, but easily distinguished by the characters given in the key.

***Aeolothrips albicinctus* Haliday.**

1836. *Aeolothrips albicincta* Haliday, Ent. Mag., p. 451.
 1838. *Aeolothrips albicincta*, Burmeister, Handb. d. Ent., Bd. II, p. 418.
 1843. *Aeolothrips albocincta*, Amyot et Serville, Ins. Hemip., p. 646.
 1852. *Aeolothrips albicincta*, Haliday, Walker, Homop. Ins. Brit. Mus., p. 1118.
 1879. *Aeolothrips albicincta*, Reuter, Diagn. öfv. nya Thys. f. Finland, p. 7.
 1895. *Aeolothrips albocincta*, Uzel, Monogr. Ordn. Thys., p. 75, Tab. I, Fig. 3.
 1899. *Aeolothrips albicincta*, Reuter, Acta Soc. Fauna Flora Fennica, Vol. XVII, No. 2, p. 33.
 1907. *Aeolothrips albocincta*, Buffa, Atti Soc. Tosc. Sci. Nat., Mem., Vol. XXIII, p. 57.
 1907. *Aeolothrips albocincta*, Buffa, Processi verbali d. Soc. Tosc. Sci. Nat., adunanza del dì 7 luglio, 1907.
 1908. *Aeolothrips albocinctus*, Buffa, Redia, Vol. V, p. 134.
 1913. *Aeolothrips albocinctus*, Williams, Journ. Econ. Biol., Vol. 8, p. 216.

1914. *Acolothrips albicinctus*, Karny, Verh. k. k. zool.-bot. Gesellsch. Wien, LXIV Bd., p. 51.

Five females (of which two are macropterous) and one male (brachypterous) were taken in the State of New York by Mr. J. C. Faure, when he was a student in Cornell University. They were correctly identified by Mr. Faure, and have subsequently been compared by the writer with authentic European material. The detailed records of the specimens are as follows: Canastota, New York, July 29, 1912, 3 ♀♀, of which one is macropterous, on corn leaves; Canastota, N. Y., Aug. 1912, 1 ♂, brachypterous, reared; Chester, N. Y., Aug. 14, 1912, 1 ♀, brachypterous, on onion; Elmira, N. Y., July 1, 1912, 1 ♀, macropterous, on onion.

An interesting addition to the American list, which in Europe has been recorded from England, Finland, Sweden, Austria, Italy, Portugal and Sardinia.

A Remarkable Abdominal Structure in Certain Moths (Lep.).

By FREDERICK W. RUSSELL, M. D., Dallas, Texas.

Many years ago while living and collecting at Winchendon in the northern part of Massachusetts, I was one day manipulating the abdomen of a certain moth for the purpose of expressing the eggs. Suddenly there shot out from the extremity of the abdomen a tubular process, curved, tapering and crowned at the end with a neat little brush of yellowish hair. It was of a pale flesh color and sparingly clothed with delicate, long, brownish hair. With the slightest variation in the pressure, or by the motion of the air, it waved to and fro in a very interesting way. I tried by maintaining the pressure for a long time to get it to harden and so be preserved as a specimen, but after a half hour's effort I desisted, when it suddenly shot back out of sight. I have always believed that the species was *Drasteria erectea*, but I have not been able to see it in that species since, and the observation remained unique until very recently.